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(12) United States Patent Woolston

(54) MEDICAMENT CARTRIDGE ASSEMBLY

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(56) References Cited

U.S. PATENT DOCUMENTS

2,254,559 A	*	9/1941	Heyerdahl	220/784
2,834,346 A	*	5/1958	Adams	604/242
(Continued)				

FOREIGN PATENT DOCUMENTS

EP 0 063 891 A1 11/1982 EP 0 550 767 A1 7/1993 (Continued)

OTHER PUBLICATIONS

Feb. 18, 2011 Office Action issued in U.S. Appl. No. 12/461,951. (Continued)

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(57) ABSTRACT

An adaptor top for a medicament cartridge, the medicament cartridge including a cylinder having a main body portion, a neck portion at a first end having a radially outwardly directed flange portion, a narrowing shoulder portion connecting the body portion and the neck portion, a cap beaded across the first end thereby to retain a fluid impermeable membrane, and the adaptor top comprising a first cylindrical body portion having a radially inwardly directed flange at one end, in use to be seated over and against the cap and a second cylindrical skirt portion being adapted, in use, to be seated against the shoulder portion of the cartridge, the second skirt portion including a plurality of fingers, the free ends of the fingers in use being adapted to be seated beneath the outwardly directed flange of the medicament cartridge.

9 Claims, 1 Drawing Sheet

